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PIPE-PROCESSING MACHINE TOOLS

/Summary: The following report contains information on machine tools used most prevalently in the USSR at the present time for cutting, threading, and bending pipes to be used in conducting heat, gas, and water./

Models 872 and 9122

/Specifications and photographs of these two models are available in FDD Translation No 308, Soviet Catalog of Metal-Cutting Machine Tools, Part Three, 12 July 1951./

The outstanding feature of Model 9122 is that it will cut pipe without leaving any burrs.

Models 8715 and NS-1B Hack Saving Machines

	Model 8715	Model NS-1B
Maximum diameter of pipe that can be cut at a 90 degree angle	Up to 150 mm	Up to 150 mm
Number of double strokes of saw frame per minute	64-96-120	72-120-154
Power of electric motor	1.3 kw	1.0 kw
Dimensions (l x w x h)	1,380 x 1,000 x 750 mm	600 x 1,000 x 1,000 mm
Weight	--	320 kg

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Model S-246A

This pipe-cutting machine is produced by the Moscow Construction-Tools Plant imeni M. I. Kalinin. It can also cut bar stock 25 to 35 millimeters in diameter.

Diameter of pipe that can be cut	½-4 in.
Speed of head	109; 218 rpm
Number of speeds of cutoff head	2
Maximum travel of cutters	60 mm
Number of cutters	2
Power of electric motor	2.8 kw
Speed of electric motor	1,420 rpm
Dimensions (l x w x h)	1,400 x 815 x 1,330 mm
Weight	800 kg

Model TS-102

This pipe cutoff machine is produced by the Tsentroenergomontazh Trust. It has a built-in motor.

Diameter of pipe that can be cut	1½-4 in
Maximum travel of cutters	25 mm
Number of cutters	1-2
Power of electric motor	1.5 kw
Speed of cutting pipe with walls 5 mm thick	51 seconds
Dimensions (l x w x h)	680 x 450 x 1,000 mm
Weight	277 kg

Model VMS-31

This roller-type cutoff machine is produced by the Santekhoborudovaniye Plant of Glavsantekhprommontazh [Main Administration of the Sanitary Engineering and Installation Industry?], Ministry of Construction of Machine-Building Enterprises. It is exceptional for its high productivity. Pipes are cut by means of a rotating roller. Steel or cast-iron pipes can be cut on it.

Diameter of pipe that can be cut	½-5 in
Spindle speed	192 rpm
Peripheral speed of cutting disk [sic; roller?]	1.7 m/sec
Power of electric motor	1.8 kw

Speed of electric motor	960 rpm
Speed of cutting pipe 75 mm in diameter	About 15 seconds
Dimensions (l x w x h)	1,120 x 710 x 1,670 mm
Weight	600 kg

Cutoff Machine With Abrasive Disk

This machine tool, designed by the Soyuzteplostroy, has a pendulum saw, the cutting element of which is a corundum disk 3-4 millimeters thick and 350-440 millimeters in diameter. The outstanding features of this machine tool are its noiseless operation, finish of cut, and high productivity.

Diameter of pipe that can be cut	½-5 in
Disk speed	2,300 rpm
Peripheral speed of cutting roller [sic; disk?]	48 m/sec
Power of electric motor	1.5 kw
Speed of electric motor	1,500 rpm
Dimensions (l x w x h)	1,200 x 500 x 1,300 mm
Weight	140 kg

Model AMS-32

This is an anode-mechanical cutting machine. Cutting on this type of machine as compared with cutting on ordinary machine tools increases labor productivity by 55 percent, decreases waste 60 percent, and decreases the cost of cutting 80 percent.

Diameter of pipe that can be cut	4 in
Peripheral speed of cutting roller [sic; disk?]	17 m/sec
Power of electric motor	2.2 kw
Speed of electric motor	950 rpm
Dimensions (l x w x h)	1,310 x 760 x 1,376 mm
Weight	700 kg

Model S-225

In addition to threading pipes ½ to 2½ inches in diameter, this machine tool can also cut inch threads (½ to 1¼ inch) and metric threads (12-76 millimeters) on bars.

Models S-240, S-289, and 10-10

Models S-240 and S-288 pipe-bending machines are produced by the Plant imeni M. I. Kalinin and Model 10-10 by the Odessa Plant imeni XVI Parts'yezd.

Model STD-T2

This pipe-bending machine is produced by a plant of Glavsantekhmentazh (Main Administration of Sanitary Engineering and Installation Work), Ministry of Construction of Heavy Industry Enterprises. It is intended for bending pipes with the use of a mandrel, without filling the pipe with sand. The mandrels are interchangeable attachments which keep the pipes from flattening during the bending operation. Bending rollers are also interchangeable.

Model TG-38-108

This pipe-bending machine is produced by the Kiev Electrical Machinery Plant of the Ministry of Electric Power Stations. This machine can also bend pipes without filling them with sand.

Maksimum Machine

This is a pipe-bending machine which can be driven by power or by hand.

Model Vol'nov S-119

This is a pipe-bending machine which is operated by hand only and is intended for bending pipes of small diameter.

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